11. (New) The method of claim 10, further comprising the step of adding to the layer an element selected from the group consisting of carbon and germanium.

12. (New) The method of claim 11, further comprising the step of adding metallic contacts to the layer.

13. (New) The method of claim 11, further comprising the step of annealing.

Remarks

The objection raised under 35 U.S.C. 112 against canceled claims 1 and 2 is believed to have been overcome by the new claims proposed above.

Three U.S. Patents, 6,190,571 - Kato, 4,885,614 - Furukawa et al. and 5,442,200 - Tischler have been cited against original claims 1 and 2, the former in support of an allegation of anticipation under 35 U.S.C. 102 and the combination of the latter two references in support of an allegation of obviousness under 35 U.S.C. 103.

Applicant has carefully considered the references and had to conclude, with respect, that the Examiner appears to have misinterpreted their teaching. The Examiner's allegation that Kato, in Figs. 1-2 or 3-4 discloses the claimed invention would seem to lack any basis in fact. For Kato discloses, in the referred-to figures, as well as throughout its disclosure, a semiconductor micromachine. Nowhere does the discerned reader find any reference to the kind of integrated polycrystalline silicon resistor with carbon or germanium disclosed by the instant application. Kato's layer 160 is an insulation section made of undoped polycrystal (*sic* !) silicon and serves to prevent cross-currents, or raise the signal-to noise ratio, between driving and detecting electrode sections and wires. The low conductivity which the Examiner claims is disclosed

at col. 11, lines 53-57 is the result of a "depletion layer" which is formed on the side of the electrical insulation section 160 by lowering the carrier density and which is prevented from being formed on the side of the electrodes and the wires. Applicant has not been able to find any reference in the Kato disclosure to boron doping of the electrical insulation section. With respect, the Examiner's attempt to read Applicant's invention on Kato's disclosure is clearly erroneous. Nobody skilled in the art would be enabled, without inventive ingenuity, on the basis of Kato's disclosure to devise Applicant's invention as defined in the amended claims set forth above.

In the Examiner's opinion Applicant's invention as defined in original claims 1 and 2 is also rendered obvious by '614 - Furukawa et al., and '200 - Tischler. The basis for the Examiner's allegation that the emitter 44 has a finite resistance is not apparent from Furukawa's disclosure, but if *arguendo* one were to accept this view, it would not support any claim to it being a high-ohmic resistance component. Since Furukawa's emitter layer is grown by molecular beam epitaxy (col. 5, lines 20 *seq.*) it is most likely not polycrystalline. Therefore, there is nothing in Furukawa which can reasonably be said to render Applicant's invention as defined in the new claims obvious.

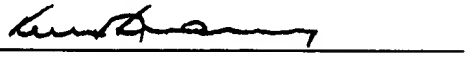
Tischler's boron doping adds nothing to whatever knowledge a skilled artisan might be able to extract from Furukawa, and would not lead to Applicant's invention. In fact, Tischler is not the only reference which teaches boron doping as a way to obtaining a p-type semiconductor. This has been know to the art for some time and, in fact, the '571 reference also mentions it (col. 11, lines 21 *seq.*).

None of the prior art relied upon by the Examiner suggests, much less discloses, any integrated high-ohmic polycrystalline silicon resistor.

It is earnestly urged that Applicant's invention is patentably distinct from

any of the art of record. Allowance of the instant application would thus seem to be indicated and is courteously solicited.

Respectfully submitted,



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